REMARKS

In the outstanding office action, claims 1, 2, 10-17 and 20-30 were presented for examination. Claims 1, 2, 10-17 and 20-30 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,625,244 to Bradfield in view of U.S. Patent No. 5,254,896 to Bradfield et al. (the '896 patent) and further in view of U.S. Patent No. 5,479,060 to Giamati et al.

Claims 10, 11, 27 and 28 have been cancelled without prejudice rendering the rejections with regard to the same moot.

Applicants would like to thank the examiner for his time to discuss the present application on January 17, 2003. Pursuant to the discussion with the examiner on January 17, 2003, applicants have amended the claims to structurally distinguish the same from the prior art.

Claim 1 has been amended to include the limitations of claims 1 and 11 previously pending before the office. Claim 2 has also been amended to include the limitations of claims 2 and 12 previously pending before the office. In addition, existing claim limitations have been moved into the preamble of independent claims 1 and 2. Thus, it is believed that the present amendment does not require additional consideration and as discussed herein places the claims in a condition for allowance.

Claim 1, as amended, is directed to a replacement slip ring assembly having, among other elements, a pair of replacement slip rings each having a

coupling terminal, one of said coupling terminals being secured to one of the pair of coil leads of the coil, and the other one of the coupling terminals being secured to the other one of the pair of coil leads; and a pair of retaining members for securing the pair of coil leads and the coupling terminals to the fan, wherein said pair of retaining members are ultrasonically welded to said fan; and wherein said pair of replacement slip rings are secured to the electric machine after an original slip ring assembly is removed from the electric machine and said pair of retaining members provide a means for securing the pair of coil leads and the coupling terminals to the fan in substantially the same location as the pair of coil leads and the coupling terminals of the original slip ring assembly.

More specifically, the replacement slip ring assembly of claim 1 is specifically designed to provide a means for securing the coil leads and the slip ring coupling terminals to the fan once an original point of securement has been broken (e.g., the removal of the original slip ring). In fact, claim 1 is directed to an assembly having a pair of retaining members for providing a means for securing the replacement coupling terminals to the fan once an original point of securement of the type embodied in Figure 3 of the '896 patent has been broken.

Claim 2, as amended is directed to a rotor and replacement slip ring assembly, having among other elements, a retaining member securing the point of securement to the fan, wherein said retaining member is ultrasonically welded to the fan; and wherein the replacement slip ring is secured to the rotor after an original slip ring is removed from the rotor, and said retaining member provides a

means for securing the point of securement to the fan after the replacement slip ring is secured to the rotor.

Accordingly, claim 2, as amended, is directed to a rotor and replacement slip ring assembly having a retaining member which provides a means for securing a replacement slip ring to the fan after an original slip ring has been removed. More specifically, the retaining member of claim 2 provides a means for securing the coil lead and the slip ring lead to the fan once an original heat staked point of securement has been broken (e.g., the removal of the original slip ring).

In addition, claim 2 is directed to a rotor and replacement slip ring assembly having a retaining member for providing a means for securing the replacement lead to the fan once an original point of securement of the type embodied in Figure 3 of the '896 patent has been broken.

Claims 12-17, 20-26 and 29-30 have been amended to conform the same claims 1 and 2, respectively.

It is respectfully submitted that claims 1 and 2, as amended, are allowable over the art of record as claims 1 and 2 are directed to an apparatus for dealing with the inherent problems of the permanent point of securement illustrated in Figure 3 of the '896 patent. More specifically, and in order to replace the slip ring assembly of the device in the '896 patent, the permanent point of securement is broken and cannot be re-used to secure leads of a replacement slip ring. Claims 1 and 2, and the claims dependent therefrom are directed to an apparatus for

securing replacement contacts of a replacement slip ring to the fan once the permanent type of original point of securement (Bradfield et al.) has been broken. Thus, it is respectfully submitted that claims 1 and 2 are allowable over the '896 patent.

Referring now to the Giamati reference (United States Patent No. 5,767,605) the same is directed to a brush assembly with wear inserts for a rotating ice protection system. Applicant respectfully submits that the Giamati reference provides no teaching of a means for securing the coil leads and the slip ring leads to a fan once an original heat staked point of securement has been broken as now claimed. Therefore applicant respectfully submits that the present application is now in a condition for allowance.

If for any reason the Examiner feels that consultation with Applicant's attorney would be helpful in the advancement of the prosecution, he is invited to call the telephone number below for an interview.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-0831.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	SILVA ET AL.	)	
		)	
SERIAL No.:	09/773,274	)	ART UNIT
		)	2834
FILED:	January 31, 2001	)	
		)	EXAMINER:
		)	Pedro Cuevas
FOR:	APPARATUS AND METHOD FOR SECURING WIRES OF A ROTOR	)	

MARKED UP VERSION OF PRIOR PENDING CLAIMS

IN THE CLAIMS:

Please cancel claims 10, 11, 27 and 28 without prejudice.

Please amend/replace claims 1, 2, 12-17, 20-26, 29 and 30 as follows:

Claim 1. (twice amended) A [fan and] replacement slip ring assembly for an electric machine, having a rotor with a rotatable shaft being rotatable along a longitudinal axis, a field coil having a pair of coil leads, a fan having a central aperture through which the shaft passes, the pair of coil leads passing through a pair of openings in the fan, the replacement slip ring assembly comprising:

[a) a rotor for said electric machine, said rotor comprising a rotatable shaft along a longitudinal axis and a field coil having a pair of coil leads;

b) a fan having a central aperture through which the shaft passes, the pair of coil leads passing through a pair of openings in said fan;

c)] a pair of replacement slip rings longitudinally spaced from [said] the fan, each replacement slip ring having a coupling terminal, said replacement slip

rings being secured to said shaft, one of said coupling terminals being secured to one of [said] the pair of coil leads of [said] the coil, and the other one of [said] the coupling terminals being secured to the other one of [said] the pair of coil leads; and

[d)] a pair of retaining members for securing [said] the pair of coil leads and [said] the [pair of] coupling terminals to [said] the fan, wherein said pair of retaining members are ultrasonically welded to said fan; and

wherein said pair of replacement slip rings are secured to the electric machine after an original slip ring assembly is removed from the electric machine and said pair of retaining members provide a means for securing the pair of coil leads and the coupling terminals to the fan in substantially the same location as the pair of coil leads and the coupling terminals of the original slip ring assembly.

Claim 2. (twice amended) A rotor and replacement slip ring assembly having [for an electrical machine,] a shaft defining an axis of rotation of the rotor, first and second pole pieces affixed to the shaft for rotation therewith and together defining an interior cavity, a fan secured to either one of the pole pieces, a field-generating coil disposed within the interior cavity, the field-generating coil comprising a plurality of turns of electrical wire, the electrical wire further having a coil lead extending to and being electrically coupled to a lead of a replacement slip ring affixed to the shaft for rotation therewith, the coil lead and the lead of replacement slip ring defining a point of securement, the rotor and replacement slip ring assembly comprising:

[a) a shaft defining an axis of rotation of said rotor;

b) first and second pole pieces affixed to said shaft for rotation therewith and together defining an interior cavity;

c) a replacement slip ring affixed to said shaft for rotation therewith;

d) a field-generating coil disposed within said interior cavity, said field-generating coil comprising a plurality of turns of electrical wire, said electrical wire further having a coil lead extending to and being electrically coupled to a lead of said slip ring, said coil lead and said lead of said slip ring defining at a point of securement;

e) a fan affixed to either said first or second pole piece; and

f)] a retaining member, said retaining member securing [said] the point of securement to [said] the fan, wherein said retaining member is ultrasonically welded to [said] the fan; and

wherein the replacement slip ring is secured to the rotor after an original slip ring is removed from the rotor, and said retaining member provides a means for securing the point of securement to the fan after the replacement slip ring is secured to the rotor.

Claim 12. (amended) The rotor and replacement slip ring assembly as in claim [10] 2, wherein said retaining member secures [said] the point of securement to a portion of [said] the fan, [said] the portion being the location of the securement of a lead of [said] the original slip ring.

Claim 13. (twice amended) The rotor and replacement slip ring assembly as in claim 2, wherein [said] the field-generating coil includes a pair of coil leads extending to and being electrically coupled to a pair of leads of a pair of

replacement said slip rings to define a pair of points of securement, [said] the pair of points of securement being secured to [said] the fan by a pair of retaining members.

Claim 14. (twice amended) The [fan and] replacement slip ring assembly as in claim 1, wherein said pair of retaining members each comprise: a receiving area being configured and dimensioned to cover [said] the pair of coil leads and [said] the pair of coupling terminals when said retaining members are secured to a surface of [said] the fan.

Claim 15. (twice amended) The [fan and] replacement slip ring assembly as in claim 14, wherein said pair of retaining members further comprise:

a pair of end portions depending outwardly from a pair of leg portions, said pair of leg portions being secured to each other at one end, and said pair of leg portions defining said receiving area, said end portions being secured to [said] the surface of [said] the fan.

Claim 16. (amended) The [fan and] replacement slip ring assembly as in claim 15, wherein said pair of end portions each have a heat staking portion.

Claim 17. (twice amended) The [fan and] replacement slip ring assembly as in claim [11] 1, wherein said pair of retaining members secure [said] the pair of coil leads and [said pair of] the coupling terminals to a portion of [said] the fan, [said] the portion comprising a portion of an original heat staking location of [said] the original slip ring assembly.

Claim 20. (amended) A rotor and replacement slip ring assembly as in claim 2, wherein said retaining member defines a receiving area being configured and dimensioned to cover [said] the point of securement when said retaining member is secured to a surface of [said] the fan.

Claim 21. (amended) The rotor and replacement slip ring assembly as in claim 20, wherein said retaining member further comprises:

a pair of end portions depending outwardly from a pair of leg portions, said pair of leg portions being secured to each other at one end, and said pair of leg portions defining said receiving area, said end portions being secured to [said] the surface of [said] the fan.

Claim 22. (amended) The rotor and replacement slip ring assembly as in claim 21, wherein said pair of end portions each have a heat staking portion.

Claim 23. (amended) The rotor and replacement slip ring assembly as in claim 22, wherein said retaining member is constructed out of a polymer.

Claim 24. (amended) The rotor and replacement slip ring assembly as in claim 23, wherein [said] the fan is constructed out of a polymer.

Claim 25. (amended) The rotor and replacement slip ring assembly as in claim 20, wherein said retaining member is manufactured by an injection molding process.

Claim 26. (amended) The rotor and replacement slip ring assembly as in claim 21, wherein said leg portions define a triangular receiving area.

Claim 29. (amended) The [fan and] replacement slip ring assembly as in claim 1, wherein said pair of retaining members secure [said] the pair of coil leads and [said pair of] the coupling terminals to a portion of [said] the fan, [said] the portion of [said] the fan comprising a portion of an original heat staking location of an original point of securement of [said] the pair of coils leads and a pair of original coupling terminals of a pair of original slip rings, wherein said replacement slip rings are replacements for [said] the pair of original slip rings.

Claim 30. (amended) The rotor and replacement slip ring assembly as in claim 2, wherein said retaining member secures [said] the point of securement to a portion of [said] the fan, [said] the portion of [said] the fan comprising a portion of an original heat staking location of an original point of securement of [said] the coil lead and an original lead of an original slip ring, wherein [said] the replacement slip ring is a replacement for [said] the original slip ring.